PROGRAM MANAGEMENT TOOL
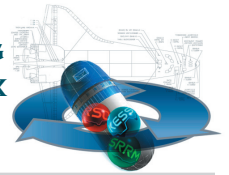
CHALLENGES

Current NASA programs struggle to deal with:

- a complex hierarchical structure of project milestones, deliverables, and line management
- adequately reporting and analyzing project life cycle costs
- reporting project schedule timelines

OBJECTIVES

This product has 3 major objectives:

- provide a comprehensive application tool for monitoring, disseminating, and tracking progress of program and project goals and resources
- facilitate use for reporting project status, resource allocations, and track accountability
- provide strategic programmatic information for communication among NASA enterprises and programs

CUSTOMERS & COLLABORATORS

Currently the Engineering for Complex Systems Program is the customer for this product. Other programs and groups within NASA are interested in utilizing this tool for its program and project management capabilities.

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IMPACTS

The Program Management Tool enables 5 key elements to the model-based approach of program and project management:

- it is a comprehensive, web-enabled application tool used to assist NASA enterprises and programs in monitoring, disseminating, and tracking the progress of R&D program and project goals, deliverables, milestones, and their respective resources.
- the tool is aimed at providing and gathering strategic programmatic information to stakeholders.
- the tool is designed to be flexible and extensible to be able to integrate with existing and/or new strategic information management systems in promoting improved communication between various NASA enterprises and programs.
- built-in middleware architecture enables efficient G-to-G integration
- data architecture designed to support model-based program management

TECHNOLOGIES USED

The tool enables the first element by providing an intuitive and enhanced web interface to automate the tedious process of gathering and sharing monthly progress reports, task plans, and other project resources based on technical, schedule, budget, and management criteria and merits. It allows the second element for stakeholders to capture and disseminate strategic information by providing spreadsheet-like analysis features, such as graphical views of resource allocations in the form of bar and pie charts. The third and fourth are enabled by an extensible architecture and framework to integrate with new and/or existing strategic information systems, such as the ERASMUS reporting system at NASA Headquarters. It enables an open enterprise solution by utilizing the latest web standards and technology, such as XML data exchange and the WebDAV (Web Distributed Authoring and Versioning) protocol for collaborative document management.

The fifth element is supported by abstracting NASA 7120.5 project planning guideline into the PMT either directly via data elements and management monitoring algorithms, and/or via middleware links to portfolio, risk, configuration, and other tools.